

### **REMARKS/ARGUMENTS**

Reconsideration is respectfully requested of the Final Action of November 15, 2007, relating to the above-identified application.

The claims in the case are 18, 19, 21-24, 26 and 27.

Claim 18 is the sole independent claim in this application and was previously amended to more clearly specify the order of the claimed steps as shown in the specification in paragraph [0025].

It is noted that the original drawings have been accepted.

Undersigned counsel filed a revocation and appointment of new attorneys on October 24, 2007, and requests that the records be updated so that future correspondence will be properly addressed.

The rejection of Claims 18, 22, 24, and 26-27 under 35 U.S.C. § 102(e) as anticipated by *Kim* (US 6,855,66), is traversed and reconsideration is respectfully requested.

The Final Action takes the position that *Kim* shows a process for preparing an exhaust gas purification catalyst by (1) preparing a solution of precursors of a zirconia-titania composite oxide; (2) adding an alkali solution to co-precipitate the solution to form a gel; (3) drying, shaping and calcining the gel to form a composite oxide; and (4) depositing thereon a catalytically active metal. The Final Action points to Claim 6 of the reference.

Applicants' Claim 18 (and therefore each of dependent Claims 22, 24, and 26-26) requires an initial step of reacting a titanium salt with an alcohol to form a titanium alkoxide

and separately reacting a zirconium salt with an alcohol to form a zirconium alkoxide. After that, the already formed titanium alkoxide is mixed with the already formed zirconium alkoxide.

The *Kim* reference fails to disclose this step, as claimed by applicants. Claim 6 of the *Kim* reference, cited in the Office Action, refers to "preparing a solution of precursors of a zirconia-titania composite oxide", but Claim 6 of *Kim* fails to specify how that solution is prepared. Disclosure of how to prepare *Kim*'s solution of precursors of a zirconia-titania composite oxide is provided in the reference at col. 5, line 57 to col. 6, line 22. There, at col. 6, line 4, the reference discloses using mixtures of the oxide precursors (e.g., mixtures of titanium and zirconium salts). *Kim* does not disclose the initial steps of reacting separately a titanium salt with an alcohol to form a titanium alkoxide and separately reacting a zirconium salt with an alcohol to form a zirconium alkoxide. These initial steps are then followed by mixing the already-formed titanium alkoxide with the already-formed zirconium alkoxide as required by applicants' claims.

The Final Official Action, on page 5, in response to applicants' arguments that *Kim* does not disclose mixing an already-formed titanium alkoxide with an already-formed zirconium alkoxide, makes a comment that applicants' argument is not persuasive because "there is no heat treatment step" involved between the step of preparing the titanium alkoxide and the step of preparing the zirconium alkoxide. However, the presence or absence of a heating step, is irrelevant to the issue of whether *Kim* anticipates Claim 18. Applicants' Claim 18 clearly requires the two steps of separate preparation of the two alkoxides which are not recited in the *Kim* disclosure. The statement on page 5 of the Final Action that "...the first

step of the Kim reference is the same as the step of mixing the titanium alkoxide and the zirconium alkoxide together to form an organo-metallic precursor..." is no substitute for the lack of disclosure in *Kim* of applicants' first step. The conclusion in the Final Action that applicants' step of first reacting a titanium salt with an alcohol to form a titanium alkoxide and separately reacting a zirconium salt with an alcohol to form a zirconium alkoxide to be the same as the process of *Kim* has no basis in fact. It is a basic tenet of patent law that to sustain a rejection on the ground of anticipation, the reference must show each and every claimed element of the rejected claim. This has not been done in the Final Rejection and, therefore, applicants respectfully submit that the rejection of Claims 18, 22, 24, and 26-27 under 35 U.S.C. § 102(e) as anticipated by *Kim* should be withdrawn.

The rejection of Claims 19, 21 and 23 under 35 U.S.C. § 103(a) in view of *Kim* taken with the patent of *Manzer, et al.*, (US 6,235,677) is traversed and reconsideration is respectfully requested.

The patent of *Kim* has already been discussed above and its lack of disclosure of the first steps of applicants' process has been pointed out.

The *Manzer* patent is relied on in the Final Action to show the use of yttrium and lanthanum and an organo-metallic precursor further including methacrylic acid. The Final Action alleges that it would have been *prima facie* obvious for one of ordinary skill at the time the invention was made to have incorporated yttrium and lanthanum into the process of *Kim* in order to achieve an improved and promoted catalyst and relies on the *Manzer* at col. 15, Claim 14.

Claim 14 of *Manzer* is a dependent claim relying on Claim 1 which defines a catalyst formed from the destabilization of a colloidal mixture containing a catalytically active metal selected from the group consisting of iron, cobalt, nickel, ruthenium, aluminum and combinations thereof, and a colloidal sol of a matrix metal selected from the group consisting of cerium, zirconium, titanium, aluminum, silicon and combinations thereof. The feature of Claim 14 indicates that a number of other elements including yttrium and lanthanum can be incorporated as a promoter for the catalyst. However, the teaching of the use of the elements recited in Claim 14, is with respect to the very specialized Fischer-Tropsch catalyst defined in Claim 1. There is no general statement in *Manzer* which would teach a person skilled in the art that the lanthanum and yttrium promoters would achieve a benefit or advantage if incorporated into the completely different catalyst defined by applicants' claims. Furthermore, there is no teaching or suggestion in *Manzer* that there would be any benefit or advantage to incorporate a promoter into the catalyst of principal reference of *Kim*. Accordingly, applicants respectfully submit that there is nothing in any of the references which would lead a person skilled in the art to modify the *Kim* patent by incorporating the particular promoters defined by Claims 19 and 21 and there would be no expectation of achieving any success in improving the catalyst as a result of that modification. Therefore, applicants respectfully submit that the combination of

references fails to create *prima facie* obviousness. Accordingly, applicants respectfully request that the rejection be withdrawn and the claims allowed.

Favorable action at the Examiner's earliest convenience is respectfully requested.

Respectfully submitted,

SMITH, GAMBRELL & RUSSELL, LLP

By:

  
Robert G. Weilacher, Reg. No. 20,531

Dated: February 14, 2008  
Suite 3100, Promenade II  
1230 Peachtree Street, N.E.  
Atlanta, Georgia 30309-3592  
Telephone: (404) 815-3593  
Facsimile: (404) 685-6893